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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/612,701

07/02/2003

James Leonard Platt

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EXAMINER

MAHMOOD, REZWANUL

ART UNIT

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/612,701	<b>Applicant(s)</b> PLATT, JAMES LEONARD	
	<b>Examiner</b> REZWANUL MAHMOOD	<b>Art Unit</b> 2164	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 April 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,7,9-11,13 and 15-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,7,9-11,13 and 15-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. A request for continued examination under 37 CFR 1.114 was filed in this application after appeal to the Board of Patent Appeals and Interferences, but prior to a decision on the appeal. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 04/10/2008 has been entered.

### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 7, 8-11, 13, and 15-17 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

To be statutory, a claimed computer-related process must either: (A) result in a physical transformation outside the computer for which a practical application is either disclosed in the specification or would have been known to a skilled artisan, or (B) be limited to a practical application with useful, concrete and tangible result.

The claimed subject is rejected under 35 USC 101 for being "software per se".

The claimed invention of claims 7 and 8-11 are addressed to "a system for populating a database" that can be interpreted as referring to lines of programming within the system, rather than referring to a physical object. The claimed invention of

claims 13 and 15-17 are addressed to "a computer program product" comprising "a recording medium" that are not hardware but a program or a software on a medium such as a compact disc. Accordingly, the claim becomes nothing more than a set of software instructions which are "software per se".

"Software per se" is non-statutory under 35 USC 101 because it is merely a set instructions without any defined tangible output or tangible result being produced. The requirement for tangible result under 35 USC 101 is defined in *State Street Bank & Trust Co. v. Signature Financial Group Inc.*, 149 F.3d 1368, 47USPQ2d 1596 (Fed. Cir. 1998)

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3-5, 7, 9-11, 13, and 15-17 rejected under 35 U.S.C. 103(a) as being unpatentable over Weissman (US Patent 6,212,524) in view of Veronese (US Publication 2004/0210445).

With respect to claim 1, Weissman discloses a method for populating a database, the method comprising:

providing a database having a schema, wherein the schema defines tables in a

database as well as fields in each table, relationships between fields and tables and dependencies among tables (Weissman: Column 2, lines 26-38 and 65-67; Column 3, lines 1-40; Column 5, lines 26-37; Here the schema defines the tables which also contain fields or attributes, the relationship between the tables, and the link or dependencies between the tables);

inferring from the schema dependencies among a fact table and related dimension tables, wherein a dependency comprises a rule for the database, enforced by a database management system, that a first record in a first table must exist in a database before a second record in a second table may be inserted in the database (Weissman: Column 3, lines 1-2 and lines 36-38; Column 5, lines 26-32; Column 6, lines 1-46; Column 7, lines 42-49; Column 10, lines 24-42; Here according to the schema definitions a dimension table links to the fact table which is the central table of the schema, so a fact table must exist first before a dimension table is generated), further comprising:

selecting from metadata describing a schema for the database expressions of dependencies (Weissman: Column 7, lines 23-49; Figure 1);

inserting, in accordance with the dependencies, rows of data into the fact table and rows of data into the dimension tables (Weissman: Column 3, lines 1-2 and lines 36-38; Column 5, lines 26-32; Column 7, lines 42-49; Column 10, lines 24-42).

However, Weissman does not explicitly disclose:

inserting the expressions of dependencies into a dependency list.

The Veronese reference, however, discloses building a dependency list for the

expressions of dependencies (Veronese: Paragraph 120, lines 1-12).

Therefore, it would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to modify the teachings of Weissman with the teachings of Veronese to add a dependency list to insert the database expressions of dependencies to have new development methodologies, which will be both rapid and easily manageable and modifiable by the users (Veronese: Paragraph 11, lines 3-5) and to have an improved data warehousing technology (Weissman: Column 2, lines 61-62).

With respect to claim 7, Weissman discloses a system for populating a database, the system comprising:

means for providing a database having a schema, wherein the schema defines tables in a database as well as fields in each table, relationships between fields and tables, and dependencies among tables (Weissman: Column 2, lines 26-38 and 65-67; Column 3, lines 1-40; Column 5, lines 26-37; Here the schema defines the tables which also contain fields or attributes, the relationship between the tables, and the link or dependencies between the tables);

means for inferring from the schema dependencies among a fact table and related dimension tables, wherein a dependency comprises a rule for the database, enforced by a database management system, that a first record in a first table must exist in the database before a second record in a second table may be inserted in the database (Weissman: Column 3, lines 1-2 and lines 36-38; Column 5, lines 26-32; Column 6, lines 1-46; Column 7, lines 42-49; Column 10, lines 24-42; Here according to

the schema definitions a dimension table links to the fact table which is the central table of the schema, so a fact table must exist first before a dimension table is generated), further comprising:

means for selecting from metadata describing a schema for the database expressions of dependencies (Weissman: Column 7, lines 23-49; Figure 1); and

means for inserting, in accordance with the dependencies, rows of data into the fact table and rows of data into the dimension tables (Weissman: Column 3, lines 1-2 and lines 36-38; Column 5, lines 26-32; Column 7, lines 42-49; Column 10, lines 24-42).

However, Weissman does not explicitly disclose:

inserting the expressions of dependencies into a dependency list.

The Veronese reference, however, discloses building a dependency list for the expressions of dependencies (Veronese: Paragraph 120, lines 1-12).

Therefore, it would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to modify the teachings of Weissman with the teachings of Veronese to add a dependency list to insert the database expressions of dependencies to have new development methodologies, which will be both rapid and easily manageable and modifiable by the users (Veronese: Paragraph 11, lines 3-5) and to have an improved data warehousing technology (Weissman: Column 2, lines 61-62).

With respect to claim 13, Weissman discloses a computer program product for populating a database, the computer program product comprising:

a recording medium (Weissman: Figure 1);

means recorded on the recording medium, for providing a database having a schema, wherein the schema defines tables in a database as well as fields in each table, relationships between fields and tables, and dependencies among tables (Weissman: Column 2, lines 26-38 and 65-67; Column 3, lines 1-40; Column 5, lines 26-37; Here the schema defines the tables which also contain fields or attributes, the relationship between the tables, and the link or dependencies between the tables);

means, recorded on the recording medium, for inferring from the schema dependencies among a fact table and related dimension tables, wherein a dependency comprises a rule for the database, enforced by a database management system, that a first record in a first table must exist in the database before a second record in a second table may be inserted in the database (Weissman: Column 3, lines 1-2 and lines 36-38; Column 5, lines 26-32; Column 6, lines 1-46; Column 7, lines 42-49; Column 10, lines 24-42; Here according to the schema definitions a dimension table links to the fact table which is the central table of the schema, so a fact table must exist first before a dimension table is generated), further comprising:

means, recorded on the recording medium, for selecting from metadata describing a schema for the database expressions of dependencies (Weissman: Column 7, lines 23-49; Figure 1); and

means, recorded on the recording medium, for inserting, in accordance with the dependencies, rows of data into the fact table and rows of data into the dimension tables (Weissman: Column 3, lines 1-2 and lines 36-38; Column 5, lines 26-32; Column 7, lines 42-49; Column 10, lines 24-42).



However, Weissman does not explicitly disclose:

inserting the expressions of dependencies into a dependency list.

The Veronese reference, however, discloses building a dependency list for the expressions of dependencies (Veronese: Paragraph 120, lines 1-12).

Therefore, it would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to modify the teachings of Weissman with the teachings of Veronese to add a dependency list to insert the database expressions of dependencies to have new development methodologies, which will be both rapid and easily manageable and modifiable by the users (Veronese: Paragraph 11, lines 3-5) and to have an improved data warehousing technology (Weissman: Column 2, lines 61-62).

5. Claims 3-5, 9-11, and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weissman (US Patent 6,212,524) in view of Veronese (US Publication 2004/0210445) as applied to claims 1, 7, and 13 above, and further in view of Medicke (US Publication 2004/0236786).

With respect to claim 3, Weissman in view of Veronese discloses the method of claim 1,

However, Weissman and Veronese does not explicitly disclose wherein inserting rows of data further comprises:

determining whether related dimension data exists for each foreign key in each row of data inserted into the fact table;

for each foreign key for which related dimension data does not exist, inserting a row of dimension data into a dimension table related to the fact table through the foreign key.

The Medicke reference, however, discloses determining whether related dimension data exists for each foreign key in each row of data inserted into the fact table, and for each foreign key for which related dimension data does not exist, inserting a row of dimension data into a dimension table related to the fact table through the foreign key (Medicke: Paragraph 73, lines 10-27; Figure 7; Figure 9).

Therefore, it would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to modify the teachings of Weissman and Veronese with the teachings of Medicke to determine if dimension data exists for each foreign key in the fact table and inserting such data if it did not exist for creation and maintenance of data warehouses (Medicke: Paragraph 1, lines 2-3).

With respect to claim 4, Weissman in view of Veronese and in further view of Medicke discloses the method of claim 1 wherein inserting rows of data further comprises:

determining whether related dimension data exists for each foreign key in each row inserted into a first dimension table (Medicke: Paragraph 73, lines 10-27; Figure 7; Figure 9; Weissman: Column 13, lines 25-67; Column 14, lines 8-67; Column 15, lines 1-15); and

for each foreign key for which related dimension data does not exist, inserting a

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row of dimension data into a second dimension table related to the first dimension table through the foreign key (Medicke: Paragraph 73, lines 10-27; Figure 7; Figure 9; Weissman: Column 13, lines 25-67; Column 14, lines 8-67; Column 15, lines 1-15; Column 37, lines 30-35).

With respect to claim 5, Weissman in view of Veronese and in further view of Medicke discloses the method of claim 1 wherein inserting rows of data further comprises:

reading the rows of data from a first database, the first database comprising dependencies among tables in the database (Weissman: Column 9, lines 43-60); and

inserting rows of data into a second database, the second database comprising at least the same dependencies as in the first database (Weissman: Column 10, lines 23-57; Medicke: Figure 9).

With respect to claim 9, Weissman in view of Veronese and in further view of Medicke discloses the system of claim 7 wherein means for inserting rows of data further comprises:

means for determining whether related dimension data exists for each foreign key in each row of data inserted into the fact table (Medicke: Paragraph 73, lines 10-27; Figure 7; Figure 9; Weissman: Column 13, lines 25-67; Column 14, lines 8-67; Column 15, lines 1-15); and

for each foreign key for which related dimension data does not exist, means for

inserting a row of dimension data into a dimension table related to the fact table through the foreign key (Medicke: Paragraph 73, lines 10-27; Figure 7; Figure 9; Weissman: Column 13, lines 25-67; Column 14, lines 8-67; Column 15, lines 1-15; Column 37, lines 30-35).

With respect to claim 10, Weissman in view of Veronese and in further view of Medicke discloses the system of claim 7 wherein means for inserting rows of data further comprises:

means for determining whether related dimension data exists for each foreign key in each row of data inserted into a first dimension table (Medicke: Paragraph 73, lines 10-27; Figure 7; Figure 9; Weissman: Column 13, lines 25-67; Column 14, lines 8-67; Column 15, lines 1-15); and

for each foreign key for which related dimension data does not exist, means for inserting a row of dimension data into a second dimension table related to the first dimension table through the foreign key (Medicke: Paragraph 73, lines 10-27; Figure 7; Figure 9; Weissman: Column 13, lines 25-67; Column 14, lines 8-67; Column 15, lines 1-15; Column 37, lines 30-35).

With respect to claim 11, Weissman in view of Veronese and in further view of Medicke discloses the system of claim 7 wherein means for inserting rows of data further comprises:

means for reading the rows of data from a first database, the first database

comprising dependencies among tables in the database (Weissman: Column 9, lines 43-60); and

means for inserting rows of data into a second database, the second database comprising at least the same dependencies as in the first database (Weissman: Column 10, lines 23-57; Medicke: Figure 9).

With respect to claim 15, Weissman in view of Veronese and in further view of Medicke discloses the computer program product of claim 13 wherein means for inserting rows of data further comprises:

means, recorded on the recording medium, for determining whether related dimension data exists for each foreign key in each row of data inserted into the fact table (Medicke: Paragraph 73, lines 10-27; Figure 7; Figure 9; Weissman: Column 13, lines 25-67; Column 14, lines 8-67; Column 15, lines 1-15; and

for each foreign key for which related dimension data does not exist, means recorded on the recording medium, for inserting a row of a dimension data into a dimension table related to the fact table through the foreign key (Medicke: Paragraph 73, lines 10-27; Figure 7; Figure 9; Weissman: Column 13, lines 25-67; Column 14, lines 8-67; Column 15, lines 1-15; Column 37, lines 30-35).

With respect to claim 16, Weissman in view of Veronese and in further view of Medicke discloses the computer program product of claim 13 wherein means for inserting rows of data further comprises:

means, recorded on the recording medium, for determining whether related dimension data exists for each foreign key in each row of data inserted into a first dimension table (Medicke: Paragraph 73, lines 10-27; Figure 7; Figure 9; Weissman: Column 13, lines 25-67; Column 14, lines 8-67; Column 15, lines 1-15); and

for each foreign key for which related dimension data does not exist, means, recorded on the recording medium, for inserting a row of dimension data into a second dimension table related to the first dimension table through the foreign key (Medicke: Paragraph 73, lines 10-27; Figure 7; Figure 9; Weissman: Column 13, lines 25-67; Column 14, lines 8-67; Column 15, lines 1-15; Column 37, lines 30-35).

With respect to claim 17, Weissman in view of Veronese and in further view of Medicke discloses the computer program product of claim 13 wherein means for inserting rows of data further comprises:

means, recorded on the recording medium, for reading the rows of data from a first database, the first database comprising dependencies among tables in the database (Weissman: Column 9, lines 43-60); and

means, recorded on the recording medium, for inserting rows of data into a second database, the second database comprising at least the same dependencies as in the first database (Weissman: Column 10, lines 23-57; Medicke: Figure 9).

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to REZWANUL MAHMOOD whose telephone number is (571)272-5625. The examiner can normally be reached on M - F 10 A.M. - 5 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones can be reached on (571)272-4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/R. M./  
Examiner, Art Unit 2164

June 9, 2008

/Charles Rones/  
Supervisory Patent Examiner, Art Unit 2164